

# State of California Demand Side Programs

4/29/02

Program by Sector	Geographic Area Served	Role					Status	Comments
		CEC	CPUC	CPA	DWR	Other		Description & Eligibility (Funding)
Residential Sector								
Residential Innovative Peak Demand Reduction Program	Statewide	Lead					Rebates available through summer 02	Incentives to residential customers for peak reducing efforts, including tune-ups of air conditioners, high performance windows, sealed ducts and shade screens. (GF)
Residential Building Standards	Statewide	Lead	Fund IOU Participa- tion, technical support				Effective 6/1/01 New stds adopt in 2003	Applies to all new construction, affects all builders and building departments, provide benefits to all homeowners and renters (ERPA, PGC, DOE, Ratepayers)
Residential Retrofit Standards Study (AB 549)	Statewide	Lead	Possible Funding				Complete 1/1/04	Recommend methods to reduce peak load in existing buildings including mandatory standards (PGC, ERPA)
Residential Appliance Standards	Statewide	Lead	Fund IOU Participa- tion, technical support				adopted 2/6/02, New stds. 2004	Affects manufactures. Benefits all consumers (ERPA, PGC, DOE, Ratepayers)
Federal Funding for Training Production Home Builders	Statewide	Lead					Ongoing	Available to home builders and building departments (ERPA, DOE)
Federal Funding for Building Departments	Statewide	Lead					Ongoing	CEC Hotline, training and support available to all Calif. building departments. (ERPA, DOE)
Residential Solar PV Turnkey Installation	Statewide	Technical support		Lead - Financing			Proposed	Program will modify SMUD-type program statewide, working with multiple partners. Seeks economies of scale to wean buyers off public subsidies. Muni utilities, local government, private parties (CPA)
Emerging Renewable Buydown Program	Statewide	Lead					Ongoing	Provide incentives for the installation of new, onsite, emerging generation technologies (e.g.- PV, small wind). Residential through industrial applications. Approximately \$25 million per year. (PGC)
Residential Advanced Interval Meters	Statewide, in selected locations		Establish Rate Structure	Lead - Financing		Muni's to Adopt Time Differen- tiated Tariffs	Loan negotiations pending	Residential pilot of 10,000 meters. Loan contingent on applicant piecing together TOU tariffs, aggregated demand-response, and customer services (CPA)

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Residential Sector Continued								
Appliance, HVAC, and other efficiency measure rebates	Large and small IOUs		Lead	Financing - Statewide			Ongoing CPA loans to start Q4 '02	Rebates to consumers and incentives for distributors and manufacturers. CPA financing planned for Energy Star appliances. (PGC, GF, CPA)
New Construction and Retrofit Incentives	IOU Service Areas	Technical support	Lead				Ongoing and proposed	Incentives offered for new construction and remodeling improvements that exceed Title 24 requirements. Local third party programs and IOU programs. (PGC)
Distributed Generation Incentives Program	IOU Service Areas		Lead				Ongoing	Provides financial incentives to install DG. Waives certain charges for renewable DG (Ratepayers.)
Net Metering Program	IOU Service Areas		Lead				Ongoing and proposed	Establishes rate and safety rules for selling excess self-generated power back to grid. (Ratepayers)
Time of Use Rate Structure	IOU Service Areas		Lead				Ongoing	Voluntary program that allows customers to take service from IOU at time differentiated rates. (Ratepayers)
Demand Response Pilot programs	SMUD and PG&E	Lead					Design phase, pilots summer 2002	Residential customers on experimental critical peak pricing tariffs in SMUD. A pilot in PG&E area will educate customers to adopt demand responsive and energy efficiency (GF)
Smart Thermostat pilots	SDG&E/SCE	Evaluation support	Lead				Design phase, pilots scheduled for summer 2002	Program design set; IOUs recruiting customers (PGC)
AC Cycling	SCE		Lead				Ongoing.	Residential and commercial customers may participate. Participants receive bill credits in exchange for having their A/C units turned off or cycled on and off up to 6 hours per day. (Ratepayers)

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Commercial and Industrial Sector								
Demand Responsive Building Systems	Statewide	Lead	Considering Incentives and Programs	Optional Financing			Rebates available for small commercial. CPA loans start Q4 '02	Installation of more demand responsiveness systems and meters for any commercial or industrial customers above 100kW (GF)
Real Time (interval) Meters	Statewide	Lead	Establish Rate Structure	Financing turnkey meter deployment	Technical Support		CEC ongoing installations. CPA approved 1st of 3 loans 4-26-02 for 10,000 meters.	CEC meters for customers over 200 kW (GF); CPUC requires IOU meter recipients to enroll in a Time-of-Use rate schedule. CPA meters for vendors to customers less than 200 kW; financing turnkey meter deployment 10,000 - millions of meters. (CPA)
Nonresidential Building Standards	Statewide	Lead	Fund IOU Participation, technical support				Effective 6/1/01, New stds adopt in 2003	Applies to all new construction and tenant improvements, affects builders and building departments (ERPA, PGC, DOE, Ratepayers)
Nonresidential Appliance Standards	Statewide	Lead	Fund IOU Participation, technical support				Adopted 2/6/02, New stds. 2004	Applies to manufacturers, affects building owners (ERPA, PGC, DOE, Ratepayers)
Nonresidential Retrofit Standards Study (AB 549)	Statewide	Lead	Possible Funding				Complete 1/1/04	Recommend methods to reduce peak load in existing buildings including mandatory standards (PGC, ERPA)
Innovative Peak Demand Reduction Program	Statewide	Lead					Rebates available through summer 02	Incentives to the commercial/industrial customers to reduce demand. Projects include lighting retrofits (GF)
Various Federal Programs	Statewide	Lead					Ongoing Annual Program	Includes: Rebuild America, High Performance School Demonstration Program, and Federal support for Building Standards support efforts. (DOE)
Department of Energy NICE3 Program	Statewide	Lead					Ongoing Annual Program	Serves any industry in Calif. pilot testing an energy saving or environmentally preferred change to their process. (DOE)

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Commercial and Industrial Sector Continued								
DOE Industries of the Future Program	Statewide	Lead					Ongoing Annual Program	Serves industries selected by Industries of Future Program incl. glass, metal casting, petroleum refining. (DOE)
Tax-Exempt Industrial Development Bonds for Efficiency & Clean Energy	Statewide	Technical Support		Lead - Financing		CDLAC authorized & CIDFAC IDB bond guidance	Launched 4/02	\$30 million allocation for 2002, available to small manufacturers with <\$10 million near-term capital investment in city/county
Energy Efficiency & Distributed Generation Loans to Business with Repayment via Utility Bills	Statewide	Technical Support	Considering utility bill repayment mechanism	Lead - Financing			Loan repay mechanism proposed 1/02; Loans to start Q4 '02	\$200 million loan program planned. Adding utility bill repayment expands market to leased space & debt-constrained organizations under-represented in most State & utility programs. (CPA)
Cool Roofs	Hot areas of state	Lead		Optional Financing			Rebates available through 6/03. CPA loans start Q4 '02	Provide incentives and other measures to lower air conditioning loads (GF, CPA)
Emerging Renewable Buydown Program	Statewide	Lead					Ongoing	Provide incentives for the installation of new, onsite, emerging generation technologies (e.g.- PV, small wind). Residential through industrial applications. Approximately \$25 million per year. (PGC)
Incentives for Commercial Lighting	Large and small IOU Service Areas		Lead	Optional Financing - Statewide			PUC Ongoing. CPA loans start Q4 '02	Retrofit Commercial Buildings with High Efficient Lighting systems by IOUs and third parties. Sierra Pacific and SoCalWater (Bear Valley Electric) Service Territories (Ratepayers, GF, CPA)
Non Residential New Construction and Retrofit	IOU Service Areas		Lead				Ongoing and proposed	Incentives for construction or comprehensive renovations of commercial and industrial buildings. (PGC)
Non Residential Process Overhaul, Motor Change out, HVAC, Lighting	IOU Service Areas		Lead	Optional Financing - Statewide			Ongoing and proposed	Incentives for improving energy efficiency in manufacturing processes, HVAC, variable speed motors, high efficiency lighting. (PGC)

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Commercial and Industrial Sector Continued								
Traditional Interruptible Programs (TIP)	IOU Service Areas		Lead				Tariffs extended through Dec. 2003.	Participants receive rate discounts in return for specific load amounts to be curtailed during Stage 2 alerts. Participants typically have a monthly demand of at least 500 kW. (Ratepayers)
Base Interruptible Program (BIP)	IOU Service Areas	Deploy Enabling Technologies	Lead				Tariffs extended through Dec. 2003.	Participants receive capacity payments in return for specific load amounts to be curtailed during Stage 2 alerts; participants must be able to curtail 15% of their load, with a minimum load drop of 100 kW per event; A pilot program (San Jose area only) will target smaller customers by increasing the incentives and reducing the minimum load drop to 50 kW per event. (PUC-Ratepayers, CEC-GF)
Demand Bidding Program (DBP)	IOU Service Areas	Deploy Enabling Technologies	Lead		Technical Support		Suspended by DWR until 6/02; CPUC actively considering change in program administration	Participants must bid 10% of their average demand, but not less than 100 kW; participants voluntarily submit energy bids at various price tiers for designated four-hour time blocks of the next day. The price tiers range from 10 cents a kWh to 75 cents a kWh. (PUC-Ratepayers, CEC-GF)
Optional Binding Mandatory Curtailment (OBMC)	IOU Service Areas	Deploy Enabling Technologies	Lead				Tariffs extended through Dec. 2003.	Participants must be able to reduce load on an entire circuit by as much as 15% (in 5% increments). The program is activated only during Stage 3 alerts. A pilot program (PG&E territory only) will allow a variation on how load reductions will be measured. (PUC-Ratepayers, CEC-GF)
Scheduled Load Reduction Program (SLRP)	IOU Service Areas		Lead				Tariffs extended through Dec. 2003.	Participants are paid 10 cents per kWh for reduced load and must reduce their load by 15%, with a minimum load drop of 100 kW per time block. Program operates only during the summer during pre-scheduled time blocks. (Ratepayers)
Distributed Generation Incentives Program	IOU Service Areas		Lead				Ongoing	Provides financial incentives to install DG. Waives certain charges for renewable DG (Ratepayers.)

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Commercial and Industrial Sector Continued								
Net Metering Program	IOU Service Areas		Lead				Ongoing and proposed	Establishes rate and safety rules for selling excess self-generated power back to grid. (Ratepayers)
Time of Use Rate Structure	IOU Service Areas		Lead				Ongoing	All >500 kW customers, and > 200 kW customers with GF-funded meters, must pay time differentiated rates. (Ratepayers)
Rolling Blackout Reduction Program (RBRP)	SDG&E Service Territory		Lead				Tariff extended through Dec. 2003.	Participants are paid 20 cents per kWh for reduced load and must have backup generation capable of providing 15% of the customer's annual maximum demand, but not less than 100 kW. Program is operated only during Stage 3 alerts. (SDG&E Ratepayers)

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Government Sector								
LED Signals	Statewide	Lead					Fully Subscribed	Replace traffic signals with energy efficient lighting (GF)
Battery Backup for LED Intersections	Statewide	Lead					Available 4/15/02	Battery backup at key intersections with LED signals (GF)
Local Government, Hospitals and School Technical Assistance and Loans	Statewide	Lead		Possible financing			Ongoing for CEC CPA bond proposed Summer '02	Provide Energy Audits, New Construction Design Review and 3% interest loans (4% as of March 02, < \$2 mil/project ) to local gov't. non-profit hospitals & schools. CPA may float \$50 million bond to leverage CEC's expected cash flow (ERPA, ECAA, LJA, possible CPA)
K-12 School Energy Education Program	Statewide					SCSA has lead	All grants awarded	Provide teachers and school districts with resources to improve the energy awareness of school children and their families. (GF)
Retrofit Existing Distributed Generation at Municipal Water Districts	Statewide	Lead					Rebates available through summer 02	Retrofit existing generation units to enable AQMD permitting for longer hours of operation. Municipal & permitted water/wastewater districts may apply. (GF)
Water & Wastewater Treatment Facilities Peak Demand Reduction Program	Statewide	Lead					Rebates available through summer 02	Provide tech. Assistance and rebates for water & wastewater treatment facilities for installation of efficient motors, pumps, energy management control systems, etc. for peak demand reduction (GF, ECAA)
State and University Programs	Statewide	Lead		CPA adding loans starting 2002			CEC funding fully Subscribed	Peak load Reduction planning, staff training and energy efficiency improvements at State Colleges and Universities, 176 state DGS Buildings and all Department of Corrections controlled facilities. (GF, CPA)
CPA Public Agency Loan Pool	Statewide	Technical Support	Considering utility bill repayment mechanism	Lead - Financing			Lending expected Q3 '02	Loans for larger projects > \$2 million to tens of millions. Will include efficiency, distributed generation, solar. Initial loans \$50 million +. Statewide pool reduces issue & admin costs. (CPA)

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Government Sector Continued								
Public School Solar PV Program	Statewide	Technical Lead		Lead - Financing			Proposed Q3 '02	Fund expected to grow as settlements reached. Will be combo of grants and loans. (Attorney General created fund from contract settlements. CPA)
Distributed Generation Technology Public Procurement System	Statewide	Technical Support	Actively considering net metering, interconnection, departing load issues.	Lead		DGS - technical & admin support; CARB technical input.	Ongoing. Procurement Lists expected by Summer '02.	All public agencies across state can use bid and pricing lists. Increases efficiency of state & local purchase decisions on energy technologies. Eligible bidders announced for 2 of 3 technologies. Price competition next. (CPA)
DGS State Energy Projects	Statewide			Financing		DGS Lead	Proposed	These include microcogeneration and energy efficiency projects. CPA adding DG loans starting 2002 (GF, CPA)
Demand Responsive Building Systems	Statewide	Lead	Adopt Incentives and Programs	Optional Financing			Rebates available for small commercial. CPA loans start Q4 '02	Installation of demand responsiveness systems and meters (GF)
Innovative Peak Demand Reduction Program	Statewide	Lead					Rebates available through summer 02	Incentives to local governments to reduce demand. Projects include lighting retrofits (GF)
Cool Roofs	Hot areas of state	Lead		Optional Financing			Rebates available through 6/03. CPA loans start Q4 '02	Provide incentives to and other measures to lower air conditioning loads (GF, CPA)
School Energy Efficiency Measure and Behavioral Education	IOU Service Areas		Lead				Proposed for 2002 and 2003	Various local and IOU service area-wide programs by non-profits and other independent providers. (PGC)
CSU Lighting Program	IOU Service Areas		Lead				Proposed 2002 and 2003	Pilot Voltage Reduction Program (PGC)
Government Energy Efficiency	IOU Service Areas		Lead				Proposed 2002 and 2003	A number of local programs serving various city, county and regional government agencies. (PGC)



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Distributed Generation Incentives Program	IOU Service Areas		Lead				Ongoing	Provides financial incentives to install DG. Waives certain charges for renewable DG (Ratepayers.)
Net Metering Program	IOU Service Areas		Lead				Ongoing and proposed	Establishes rate and safety rules for selling excess self-generated power back to grid. (Ratepayers)
Time of Use Rate Structure	IOU Service Areas		Lead				Ongoing	All >500 kW customers, and > 200 kW customers with GF-funded meters, must pay time differentiated rates. (Ratepayers)

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Agriculture Sector								
Agriculture Loan Program/Technical Assistance	Statewide	Lead					Ongoing Project Management	For agriculture and food processing customers statewide. (PVEA)
Agriculture Peak Load Reduction Program	Statewide	Lead					Funds continue to be available for efficient equipment and pump testing and repair.	Incentives for efficient equipment installed after 1/1/01; Funding for pump testing and repair; Funding to retrofit gas to alternative fuels; Funding for dairy and central facility manure methane power projects. (GF)
Agricultural and Pumping Interruptible Program (AP-I)	SCE Service Territory	Deploy Enabling Technologies	Lead				Tariff extended through Dec. 2003.	Participants are agricultural customers with a demand of 50 kW or greater. Program is designed in a similar fashion to SCE's A/C program. (Ratepayers, GF)
Distributed Generation Incentives Program	IOU Service Areas		Lead				Ongoing	Provides financial incentives to install DG. Waives certain charges for renewable DG (Ratepayers.)
Net Metering Program	IOU Service Areas		Lead				Ongoing and proposed	Establishes rate and safety rules for selling excess self-generated power back to grid. (Ratepayers)
Time of Use Rate Structure	IOU Service Areas		Lead				Ongoing	All >500 kW agriculture customers, and > 200 kW customers with GF-funded meters, with 70% or more of their load dedicated to agricultural purposes, may take service at time differentiated rates. (Ratepayers)

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All or Multiple Sectors								
Energy Efficiency and Renewable R&D	Statewide	Lead					Ongoing	Research new technologies to reduce peak and improve energy efficiency (PGC)
Public Awareness Initiatives	Statewide	Technical Support	Financial and Technical Support			Dept. of Consumer Affairs Lead	Ongoing through Summer 2002	State-wide media campaign and other public awareness initiatives (GF, PGC)
Education and Outreach	Statewide	Lead					Ongoing	Various presentations, videos, publications etc. to help all consumer classes. (ERPA)
Demand Reserves Sold into Wholesale Ancillary Services Market	Statewide	Technical support and deploy some enabling technologies		Lead	User of resource delivered Tech support and funding		Proposed	Provides up to 1000 MW of verifiable dispatchable "capacity" into the ISO markets to reduce DWR Ancillary service costs. Provides compensation mechanism for users of CEC DR Buildings Systems (CPA)
Measurement, Verification and Evaluation	Statewide						Ongoing	CEC, CPUC and CPA are responsible for evaluating their own programs. CEC participates in CPUC market assessment and evaluation planning process (ERPA, GF, PGC, CPA)
Demand Forecasting and Assessment	Statewide	Lead					Ongoing	Monitor loads and examine consumption and weather patterns to support analysis of temperature relationships, peak demand reduction, energy savings, supply adequacy, program cost effectiveness, and program impacts. Disseminate results. (ERPA, PGC)
20/20 for 2002	IOU Service Areas	Technical Support	Lead		Funding		Under Consideration	The Administration is considering whether to have a similar rebate program this summer.
Education and Outreach	IOU Service Areas		Lead				Ongoing	Various local and IOU service area-wide programs by IOUs and third parties. (PGC)
Municipal Utility District Program	Muni Service Areas	Lead				Muni's PGC	Ongoing through Summer 2002	To conduct programs analogous to the IOU administered programs (GF, PGC)

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Funding Sources Key:				
CPA	California Power Authority bond financing			
DOE	U.S. Department of Energy Grants			
ECAA	CEC's Energy Conservation Assistance Account			
ERPA	CEC's Electricity Resource Procurement Account collected from all ratepayers			
GF	General Fund -one time funding			
LJA	CEC's Local Jurisdiction Account (PVEA)			
PGC	PUC's and Muni's Public Goods Charge collected from ratepayers by utilities			
PVEA	Petroleum Violation Escrow Account			
Ratepayers	PUC directed funding collected from SCE, PG&E, SDG&E and SoCalGas (energy efficiency programs only) ratepayers			